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15	EVOLUTIONARY INTELLIGENCE, LLC,	Case No. 5:13-4513-RMW
16	Plaintiff,	Plaintiff's Opposition to Defendants' Motion to Dismiss
17	V.	and Defendants' Motion for Judgment on the Pleadings
18	SPRINT NEXTEL CORP. et al.,	
19	Defendant.	Honorable Ronald M. Whyte Dept.: Courtroom 6, 4th Floor
20		Date: August 21, 2015 Time: 9:00 a.m.
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1	EVOLUTIONARY INTELLIGENCE, LLC,	Case No. 5:13-cv-3587-RMW
2	Plaintiff,	
3	V.	
4	YELP, INC.,	
5	Defendant.	
6	EVOLUTIONARY INTELLIGENCE, LLC,	Case No. 3:13-cv-4201-RMW
7	Plaintiff,	
8	v.	
9	APPLE INC.,	
10	Defendant.	
11	EVOLUTIONARY INTELLIGENCE, LLC,	Case No. 3:13-cv-4202-RMW
12	Plaintiff,	
13	V.	
14	FACEBOOK, INC.,	
15	Defendant.	
16	EVOLUTIONARY INTELLIGENCE, LLC,	Case No. 3:13-cv-4203-RMW
17	Plaintiff,	
18	V.	
19	FOURSQUARE LABS, INC.,	
20	Defendant.	
21	EVOLUTIONARY INTELLIGENCE, LLC,	Case No. 3:13-cv-4204-RMW
22	Plaintiff,	
23	V.	
24	GROUPON, INC.,	
25	Defendant.	
26		

1	EVOLUTIONARY INTELLIGENCE, LLC,	Case No. 3:13-cv-4205-RMW
2	Plaintiff,	
3	V.	
4	LIVINGSOCIAL, INC.,	
5	Defendant.	
6	EVOLUTIONARY INTELLIGENCE, LLC,	Case No. 5:13-cv-4206-RMW
7	Plaintiff,	
8	V.	
9	MILLENNIAL MEDIA, INC.,	
10	Defendant.	
11	EVOLUTIONARY INTELLIGENCE, LLC,	Case No. 3:13-cv-4207-RMW
12	Plaintiff,	
13	V.	
14	TWITTER, INC.,	
15	Defendant.	
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#### Introduction

In an attempt to invalidate Evolutionary Intelligence's patents under Section 101, the Defendants assert that the patents are extremely broad—so broad that they purportedly "threaten[] to preempt any field that touches computers or uses data structures anywhere in the digital world." According to the Defendants, the patents also "seek to preempt ... age-old methods of categorizing data" such as "the Dewey Decimal System" and "address information [in] employee records."

The Defendants' mischaracterization of the patents ignores the language of the claims, which is narrowly drafted to cover particular computer systems and methods for processing containerized data using specific combinations of identified structures operating in a specific way. Instead of addressing the claims' specific requirements, the Defendants cherry-pick broad statements in the specification that do not control the scope of the claims. The little attention that the Defendants give to the claim language is focused on dissecting the claims' individual elements, ignoring the Supreme Court's longstanding mandate under Section 101 that "claims must be considered as a whole." *Diamond v. Diehr*, 450 U.S. 175, 188 (1981).

This is not the first time that the Defendants have failed to appreciate the specificity of the claims. When the USPTO rejected the Defendants' nine *inter* partes review petitions, it repeatedly criticized their "vague" treatment of the patents' claims and their failure to specifically address the claims as written.

The Defendants also ignore the fact that the claimed invention is designed to overcome problems specifically arising in the field of computerized data processing. The patent's focus on problems specific to computerized data processing is sufficient by itself to defeat a challenge under Section 101, as confirmed by (i) recent court decisions; (ii) the USPTO's 2014 Interim Guidance

on Patent Subject Matter Eligibility; and (iii) Defendant Apple's own arguments in a different case involving Apple's computer search patent.

Finally, the Defendants ignore the elephant in the room: if the asserted patents are so broad, and if they really involve nothing more than "age-old methods," then why were the Defendants unable to persuade the USPTO to invalidate even a single claim, in any of the nine petitions for *inter partes* review? The answer is apparent: the Defendants' interpretation of the patents' claims is vague, overly simplistic, and incorrect. The patents are eligible under Section 101, and the Defendants' motions should be denied.

#### **Statement of Facts**

I. The Patents Disclose an Invention for Overcoming Problems Associated with the Static Information Model of Computerized Data Processing.

Evolutionary Intelligence owns U.S. Patent Nos. 7,010,536 and 7,702,682. The patents, whose provisional application was filed seventeen years ago, were conceived by inventor Michael DeAngelo, who manages and owns a significant interest in the company.

The patents describe an invention for improving the computerized processing of "containerized" data, such as the data that makes up web pages and documents. The specification describes the field of invention as relating to "creating and manipulating information containers with dynamic interactive registers in a computer, media or publishing network, in order to manufacture information on, upgrade the utility of, and develop intelligence in, a computer network ...." (1:14–20.)

The specification also discusses how existing computer systems were limited because they relied on the "static information model," whereby the processing of information containers did not result in dynamic modifications that would

improve future processing efforts by computers. The specification identifies seven problems associated with the static information model. (*See* 1:58–2:2:48). For example, in the static information model, "specific content [on a network] such as a document remains inert, except by the direct intervention of users, and is modified neither by patterns of history of usage on the network, or the existence of other content on the network." (1:58–62.) In another example, because content in the static information model is static and unaffected by prior searches, prior art search systems were unable to take advantage of successful or optimized search templates. (2:19–32.)

# II. The Patents Describe an Arrangement of Specific Structures for Solving the Problems Associated with the Static Information Model.

To overcome the significant limitations of the static information model, the specification describes an arrangement of particular computer-specific structures for processing information. The most basic structures described by the specification are "dynamic information *containers.*" A container, at minimum, includes a logically encapsulated portion of cyberspace, a *register*, and a *gateway*. (9:2-4.) The registers attach to and form part of the container. (3:10-15.) Examples of registers, which are discussed in more detail below, include (i) a *unique identification register*; (ii) a *second register* governing container interactions; (iii) an *active register*; (iv) a *passive register*; and (v) a *neutral register*. Containers may also have an *information element*, such as text, audio, or video. (*See* '536 patent at Claim 14.) The specification describes the *gateways* as being programmed with rules to enable the interaction among the various containers, and other system components. (4:54-5:11.)

As discussed in more detail below, these structures are arranged in the claims to accomplish the goal of enabling computers to process containerized data in a

way that results in dynamic modifications in order to improve future processing efforts, thereby overcoming limitations associated with the static information model. For example, the invention could enable a computer to provide to a user a dynamically changing list of restaurants that depends on the user's location, the time of day, ratings provided by other users, and the user's browsing history, and to store historical information to ensure that future processing for that user and other users is handled even more efficiently. (*See* Taylor Decl. ¶ 35.) Although this example may seem relatively mundane today, one skilled in the art of nearly two decades ago would have understood it as a substantial improvement. (*See id.*)

One of skill in the art at the time the patent application was filed would understand the inventions of the Asserted Patents to be groundbreaking departures from the static information model. (*See* Taylor Decl. ¶ 38.) Among other things, and as discussed in more detail below, the patents disclose a system that transforms web infrastructure into an application platform with content processing, storage, creation, and dissemination capabilities that were not possible in the static information model. (*Id.*) The invention breaks with the old model of the centralized web, making the web/Internet more useful and relevant to the information user. (*Id.*)

# A. The '536 Patent: Improving the Processing of Dynamic Information Regarding External Time and Location

In contrast to the static information model, the invention of the '536 patent is specially designed to process dynamic information. In particular, the '536 patent focuses on processing constantly changing information corresponding to external-to-the-apparatus time (independent claims 1 and 15) and external-to-the-apparatus location (independent claims 2 and 16) in order to make future processing of time and location information by computers more efficient. (*See* Taylor Decl. ¶ 40.)

To do so, the invention utilizes the structures discussed above—gateways, registers, information elements, and (optionally) active time registers, passive time registers, neutral time registers, active space registers, passive registers, neutral space registers, acquire registers, container history registers, and the various other registers set forth in the dependent claims. The dynamic information containers facilitate access to the information at appropriate times and in relation to pertinent locations, making the information more useful to the user. As users access the information containers, the dynamic registers are updated with information regarding their use, allowing them to evolve without human input.

The claims of the '536 patent are drawn to an embodiment of the invention in which there are "a plurality of *containers*," each of which is "a logically defined data enclosure." (See claims 1, 2, 15, and 16.) Each container must have (i) "an information element;" (ii) "a first register for storing a unique container identification value;" and (iii) "a gateway attached to and forming part of the container, the gateway controlling the interaction of the container with other containers, systems, or processes." (Id.)

Independent claims 1 and 15 further require that each container have "a *second register* having a representation designating time and governing interactions of the container with other containers, systems or processes according to utility of information in the information element relative to an external-to-the-apparatus *event time*." (Emphasis added.) In contrast, independent claims 2 and 16 require that the "second register" of each container govern interactions according to "an external-to-the-apparatus *three-dimensional space*." (Emphasis added.)<sup>1</sup>

<sup>&</sup>lt;sup>1</sup> The certificate of correction to the '536 patent that issued on June 26, 2012 clarifies that the word "time" in Claim 16 on Line 33 has been replaced with the

Independent claim 1 further requires (i) "an *active time register* for identifying times at which the container will act upon other containers, processes, systems or gateways"; (ii) "a *passive time register* for identifying times at which the container can be acted upon by other containers, processes, systems or gateways"; and (iii) "a *neutral time register* for identifying times at which the container may interact with other containers, processes, systems or gateways." In contrast, Independent claim 2 requires (i) "an *active space register* for identifying times at which the container will act upon by other containers, processes, systems or gateways"; (ii) "a *passive register* for identifying space in which the container can be acted upon by other containers, processes, systems or gateways"; and (iii) "a *neutral space register* for identifying space in which the container may interact with other containers, processes, systems, or gateways."

Independent claims 15 and 16 do not require the active/passive/neutral registers. Instead, they require an "*acquire register* for controlling whether the container adds a register from other containers or adds a container from other containers when interacting with them."

Dependent claims 3–8 add significant structural limitations to independent claims 1 and 2. These structures include: a "container history register for storing information regarding past interaction of the container with other containers, systems or processes" (claim 3); a "system history register for storing information regarding past interaction of the container with different operating system and network processes;" (claim 4) "a predefined register ... associated with an editor for user selection and being appendable to any container" (claim 5); "a user-created register ... generated by the user, and being appendable to any container"

word "space," and that the term "event time" on line 37 has been replaced with the term "three dimensional space."

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(claim 6); "a system-defined register ... controlled and used by the system and being appendable to any container" (claim 7); and "an acquire register for controlling whether the container adds a register from other containers or adds a container from other containers when interacting with them" (claim 8).

Dependent claims 9–13 provide additional limitations with respect to the gateway of independent claims 1 and 2. In claim 9, the gateway "includes means for acting upon another container ... using the plurality of registers to determine whether and how the container acts upon other containers." Claim 10 requires that the gateway be capable of "allowing interaction ... using the plurality of registers to determine whether and how another container can act upon the container." According to claim 11, the gateway must be capable of "gathering information" [by] recording register information from other containers, systems or processes that interact with the container." In claim 12, the gateway must be capable of "reporting information [by] providing register information to other containers, systems or processes that interact with the container." Finally, claim 13 specifies that the gateway includes "an *expert system* including rules defining the interaction of the container with other containers, systems or processes."

Finally, dependent claim 14 limits the items that could make up the "information element" of claims 1 and 2.

One of skill in the art at the time the patent application was filed would understand the invention of the '536 patent to be a groundbreaking departure from the static information model. (See Taylor Decl. ¶¶ 35, 38.)

### B. The '682 Patent: Solving the Problem of Processing Dynamic **Information Relating to Search Queries**

The invention of the '682 patent is designed to overcome limitations of the static information model associated with processing search queries. In the static

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information model, the information being searched did not evolve to reflect its actual utility to the people using it, and successful search strategies were not available to others. (1:63–2:58.) At most, the prior art allowed "hits" for a given web page to be tracked, without any record of the page's utility. (2:41–63.)

The invention of the '682 patent addresses these limitations by making

The invention of the '682 patent addresses these limitations by making dynamic modifications when processing search queries in order to make future processing of search queries by computers more efficient. (*See* Taylor Decl. ¶ 37.) To do so, the claims utilize a specific arrangement of containers, registers, and gateways. (*Id.*) In particular, dynamic registers encapsulated within a plurality of information containers are updated with data regarding interactions between different information containers as searches are performed. (*Id.*) This allows information regarding the different information containers to evolve as information within the containers is accessed. (*Id.*)

The independent claims of the '682 patent all require "first container registers encapsulated and logically defined in a plurality of containers." (Claims 1, 19, and 21, and 23.) After a search query is received, these first container registers are searched. (Id.) In independent claims 1, 19, and 21, the search query results in "identified containers" responsive to or associated with the search query. In contrast, in independent claim 23, the search query results in "identified search query templates encapsulated in identified containers." According to all independent claims, defined in the first container registers are "historical data associated with the interaction of the identified containers with other containers from the plurality of containers," and the searching "comprises searching the historical data." (Claims 1, 19, 21, and 23.) The identified containers are then "encapsulate[ed] ... in a new container." (Id.) All independent claims also require "updating second container registers of the identified containers with data

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associated with interactions of the identified containers with the new container." (*Id.*) Finally claims 1, 19, and 21 require providing "a list characterizing the identified containers," whereas claim 23 requires providing "a list characterizing the identified one or more search query templates to formulate subsequent search queries."

The dependent claims add significant limitations. Dependent claim 2 requires that the "search query comprises a labeled data tree having at least one parentchild relationship." Claim 3 involves "providing information identifying containers that have previously been used to respond to one or more processed queries that are substantially similar to the search query." According to claim 4, "the provided information is stored in one or more search templates." Claim 5 combines the limitations of clams 2, 3, and 4. Claim 6 builds on claim 5, and further requires "receiving a selection of one of the substantially similar search phrases" and "providing a list of previously identified containers associated with the selected search phrase." Under claim 7, "the list provides a title of each identified container and a short description of its contents." Claims 8 and 9 require "receiving a *container search level parameter*," but the two claims use the parameter in different ways; in claim 8, the searching is done only within that search level parameter, whereas in claim 9, "the list of identified containers only comprises containers associated with the container search level parameter." Claim 10 requires "encapsulating the search query into a search container." Claim 11 builds on claim 10 by further requiring that a gateway receive the search container, store "data contained within a register of the search container"; and "determin[e] whether any registers of containers accessible via the gateway are associated with the register of the search container."

Dependent claims 12–15 depend on claim 11, but add still further significant

limitations. Claim 12 requires "generating a new gateway" and "associating the container with the new gateway." Claim 13 requires "periodically aggregating the contents of registers in a plurality of gateways to characterize a plurality of containers coupled thereto." Claim 14 requires that the contents of the registers in each of the plurality of gateways comprise "at least one metric chosen from ... frequency of access of the gateway, grade of access of the gateway, description of users that have accessed the gateway, an identity of containers that have accessed the gateway, parameters associated with the gateway register, and historically accumulated register data." Claim 15 requires "monitoring transactions involving one or more gateways or containers." Claims 16 and 17 depend on Claim 15. Claim 16 requires "generating new containers based on the monitored transactions." Finally, claim 17 requires that the transactions "are based on each instance a gateway or container passes through another gateway or container."

To one of skill in the art at the time of the '682 patent's priority date, the invention of the patent was a groundbreaking departure from the prior art searching methods, which utilized the static information model. (Taylor Decl.  $\P$  37, 38.)

### III. The Inter Partes Review Proceedings

In October 2013, Apple, Facebook, Twitter, and Yelp brought eight petitions for *inter partes* review against the '536 and '682 patents. (See Kennedy Decl. Exs. B-I.) Collectively, the petitions raised fifteen patent and non-patent prior art references. (See id.)

The USPTO rejected all but one of the petitions. (See Kennedy Decl. Exs. C-I.) In doing so, the USPTO repeatedly criticized the Defendants for failing to address the specific language of the claims, and for treating the claims'

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requirements imprecisely. For example, in rejecting one of Apple's petitions, the USPTO stated:

Petitioner's brief is vague with respect to which "client-based collection of information" in Wachtel discloses the containers, registers, and first register containers and does not show persuasively that they are arranged as recited in claim 1. Petitioner's arguments and supporting Houh declaration are equally vague with respect to what portions of the client-based information in Wachtel corresponds to "updating second container registers of the identified containers with data associated with interactions of the identified containers with the new container," as recited in claim 1. Petitioner's references to several different client databases (e.g., the interest profile database, the client database enhancement list) fail to identify or discuss what database corresponds to the "second container registers" or show how any client databases are a part "of the identified containers" of claim 1.

(Kennedy Decl. Ex. F at 18 (citations omitted).) There were many other examples. *See, e.g.*, Ex. H at 17 ("We agree with Patent Owner that the Petition does not identify any specific one of the various data structures in Cree and Scully that includes each of the various data elements alleged to constitute the claimed information element, various registers, and the gateway."); Ex. D at 21 ("Petitioner's analysis fails to identify specifically how a policy specifying a space to send a reminder message is acting upon the UserAgent 'container.'"); Ex. E at 17 ("Petitioner's discussion of the various databases in Wachtel ... is vague, failing to identify which client-based repositories of information are the 'first container registers' or how they are encapsulated in a plurality of containers as recited in claim 1 and related claims.""); Ex. G at 17 ("Petitioner does not explain persuasively how any specific one of these alleged containers includes all of the registers recited in claim 1."); Ex. F at 25 ("Petitioner, however, does not state or identify which index corresponds to the 'first container registers encapsulated and

logically defined in a plurality of containers.' We agree with Patent Owner that the Petition provides insufficient and unpersuasive discussion of the claim limitations ....")

The USPTO scheduled only one of the *inter partes* review petitions for a hearing.<sup>2</sup> That proceeding involved U.S. Patent No. 5,836,529 to Gibbs, which disclosed an invention for monitoring and managing the operation of a railroad system, including timing and location, using a computer network and various computer objects and attributes. (*See* Kennedy Decl. Ex. B.) After the hearing, the USPTO found, again, that Apple had failed to show that *any* of the claims were invalid:

The objects of Gibbs fall within our construction of "container" as meaning "a logically defined data enclosure which encapsulates any element or digital segment (text, graphic, photograph, audio, video, or other), or set of digital elements." We, however, determine that Gibbs does not disclose a "container" *as claimed*.

(Kennedy Decl. Ex. B at 19 (emphasis in original).) Among other things, the USPTO found that Gibbs does not disclose a "first register having a unique container identification value," (*Id.* at 25–26), or a "neutral space register" (*Id.* at 26–27). Accordingly, *all* claims of both patents survived the *inter partes* review proceedings without amendment.

#### **Legal Standard**

Section III.B. of the Defendants' brief correctly states the legal standard for addressing patent eligibility under Section 101. (Br. at 10–12.)

There are, however, three important legal principles that Defendants do not mention. First, the Supreme Court has held that, for the purposes of Section 101,

<sup>&</sup>lt;sup>2</sup> The petition was brought by Apple, but the proceedings were joined by Twitter and Yelp, which filed an additional IPR petition substantively identical to Apple's.

"the[] claims must be considered as a whole." *Diehr*, 450 U.S. at 188. "This is particularly true in a process claim because a new combination of steps in a process may be patentable even though all the constituents of the combination were well known and in common use before the combination was made." *Id.* Accordingly, it is important to consider the claim elements as a combination.

Second, the Supreme Court reaffirmed in *Alice* that claims that "improve the functioning of the computer itself" or "effect an improvement in [another] technology or technical field" are patentable. *Alice Corp. Pty. Ltd. v. CLS Bank International*, 134 S.Ct. 2347, 2359 (2014). *See also Cal. Inst. of Tech. v. Hughes Commc'ns Inc.*, 59 F.Supp.3d 974, 991 (C.D. Cal. 2014) ("Caltech's patents improve a computer's functionality by applying concepts unique to computing ... to solve a problem unique to computing ...." The USPTO's 2014 Interim Guidance on Patent Subject Matter Eligibility, which is its most recent guidance on Section 101, also adopts this this principle. (*See* Kennedy Decl. Ex. A.) (hereinafter "PTO 2014 Guidance")

Finally, the Supreme Court in *Alice* warned courts to "tread carefully in construing [the] exclusionary principle [of Section 101] lest it swallow all of patent law," because "[a]t some level, 'all inventions ... embody, use, reflect, rest upon, or apply laws of nature, natural phenomena, or abstract ideas." *Alice*, 134 S.Ct. at 2354 (quoting *Mayo Collaborative Servs. v. Prometheus Labs., Inc.,* 132 S.Ct. 1289, 1293 (2011)).

#### Argument

#### I. The Claims of Evolutionary's Patents are Eligible Under Section 101.

The first step of the *Mayo* analysis requires "determining whether the computer-implemented claims at issue here are 'directed to' a patent-ineligible abstract idea." *DDR Holdings, LLC v. Hotels.com, L.P.*, 773 F.3d 1245, 1256–57

(Fed. Cir. 2014). "To do this, the court must identify the purpose of the claim—in other words, what the claimed invention is trying to achieve—and ask whether that purpose is abstract." *Cal. Inst. of Tech.*, 59 F.Supp.3d at 991. "Courts should recite a claim's purpose at a reasonably high level of generality. Step one is a sort of 'quick look' test, the object of which is to identify a risk of preemption and ineligibility." *Id.* In the second step, which "focuses on specific [claim] limitations," the Court determines whether the claims contain "additional features that provide practical assurance that the process is more than a drafting effort designed to monopolize [the ineligible concept] itself." *Mayo*, 132 S.Ct. at 1297.

Regardless of which *Mayo* step is considered, the patents are eligible under Section 101. As discussed in detail below, the claims are drawn to inventive concepts to improve the functioning of computers, and do not threaten to preempt the field of data processing. Accordingly, the claims are not abstract, and also contain "additional features that provide practical assurance that the process is more than a drafting effort designed to monopolize [the ineligible concept] itself." *Mayo*, 132 S.Ct. at 1297.

## A. The Patents Are Drawn to Inventive Concepts to Improve the Functioning of Computers.

Under *Alice*, a claim is patent-eligible under Section 101 if it "purport[s] to improve the functioning of the computer itself." *Id.* at 2359. *See also DDR Holdings*, 773 F.3d 1245, 1247 (Fed. Cir. 2014) (claims eligible because "the claimed solution is necessarily rooted in computer technology in order to overcome a problem specifically arising in the realm of computer networks.")

This principle has been emphasized by the USPTO in the USPTO 2014 Guidance, which directs USPTO examiners how to determine subject matter eligibility under Section 101 in light of *Alice*. *See* F.R. v. 79, No. 241 at 74619. In

particular, the January 27, 2015 supplement, entitled "Examples: Abstract Ideas," indicates that patents involving computer processing are eligible under Section 101 when *any* of the following are true: (i) the claims relate to "a concept inextricably tied to computer technology"; (ii) the claims are "necessarily rooted in computer technology in order to overcome a problem specifically arising in the realm of computer networks"; *or* (iii) the claims "improve the functioning of the claimed computer itself." (Kennedy Decl. Ex. A.)

The claims of Evolutionary Intelligence's patents easily meet not just one, but all three, of these tests. As discussed above, the patents were designed to overcome the significant limitations associated with the static information model of computerized data processing. (See Facts at II) More specifically, the purpose of the claims is to enable computers to process containerized data in a way that results in *dynamic* modifications in order to improve future processing efforts by computers. (See Facts at II. See also Taylor Decl. ¶ 40.) In particular, the claims of the '536 patent focus on processing constantly changing information corresponding to time and location to make future processing of time and location information by computers more efficient. (See Facts at II.A. See also Taylor Decl. ¶ 40.) Similarly, the claims of the '682 patent focus on making dynamic modifications when processing computer search queries to make future computer processing of search queries more efficient. (See Facts at II.B. See also Taylor Decl. ¶ 40.)

The patents discuss these inventive contributions at length. The specification discusses the static information model in detail, and describes seven drawbacks associated with it that the inventions are designed to address. (*See* Facts, at I.)

Nevertheless, the Defendants do not mention, let alone address, these improvements over the prior art. Their brief does not mention the static

information model at all. This is a significant oversight. As confirmed by
Evolutionary Intelligence's expert—a computer scientist who was active in the
field at the time the patent applications were filed—one of skill in the art would
readily understand that the patents are drawn to solving problems associated with
the static information model by providing a specific system for processing
dynamic information in a specific way. (See Taylor Decl. ¶ 42.) One of skill in the
art would also understand that these inventive contributions are necessarily rooted
in computer technology in order to overcome problems specifically arising in the
realm of computerized data processing. (Id.)
The inventive concepts of Evolutionary's patents are similar to those of
patents that Courts have recently found to be eligible under Section 101. For
example, in DDR Holdings, the Federal Circuit upheld a patent for processing
clicks on Internet ads, because the claims were rooted in computer technology:

[T]hese claims stand apart because they do not merely recite the performance of some business practice known from the pre-Internet world along with the requirement to perform it on the Internet. Instead, the claimed solution is necessarily rooted in computer technology in order to overcome a problem specifically arising in the realm of computer networks.

\* \* \*

In short, the claimed solution amounts to an inventive concept for resolving this particular Internet-centric problem, rendering the claims patent-eligible.

*Id.* at 1257–59. Similarly, in *California Institute of Technology*, the Court upheld two patents relating to the abstract concept of "encoding and decoding data for error correction." 59 F.Supp.3d 974.<sup>3</sup> The Court found that "Caltech's patents improve a computer's functionality by applying concepts unique to computing

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<sup>&</sup>lt;sup>3</sup> The order in *Cal. Tech.* contains a comprehensive and insightful discussion of post-*Alice* Section 101 jurisprudence, and is one of the most-cited judicial opinions regarding Section 101.

(like using a linear transform operation to encode data) to solve a problem unique to computing (data corruption due to noise)." *Id.* at 1000.

Even Apple recently recognized that patents for computerized searching of data are eligible under Section 101. In opposing a motion to invalidate its "universal search" patent, which covers simultaneous searching of local device content and Internet content, Apple argued: "By improving the functioning of the computer—making an existing technological process for searching operate more quickly, efficiently, and competently—claim 25 easily supplies an inventive concept." *Apple Inc. v. Samsung Elecs. Co.*, No. 12-cv-00630, Dkt. No. 1947 at 8-9 (N.D. Cal. July 17, 2014) (citations omitted). Accordingly, under Apple's own analysis, the claims of Evolutionary's patents are eligible under Section 101.<sup>4</sup>

# B. The Patents' Claims Implement the Inventive Concepts with Specific Arrangements of Particular Structures Operating in a Specific Way.

As discussed in detail above, the claims require specific arrangements of particular computer-specific structures operating in a specific way. (*See* Facts at II.) Although the fundamental structures are containers, registers, and gateways, the claims require particular *types* of these structures (e.g., "active time registers," "passive time registers," "acquire registers," "identified search query templates," etc.), and these particular types must interact in a specific manner. (*See id.*)

A proper Section 101 analysis requires the consideration of **all** of these

In a footnote, the Defendants argue that the '682 patent fails the "machine-ortransformation test." (Br. at 15 n.12.) That test, however, is not dispositive. *See CyberSource Corp. v. Retail Decisions, Inc.*, 654 F.3d 1366, 1371 (Fed. Cir. 2011) (citing *Bilski v. Kappos*, 561 U.S. 593, 604 (2010)). Further, the test has been criticized as having "far less application to the inventions of the Information Age." *Ultramercial, LLC v. Hulu, LLC*, 657 F.3d 1323, 1327 (Fed. Cir. 2011) (vacated on other grounds). Regardless, each Evolutionary patent passes the test because "it involves a specific system for modifying data that has equally concrete and valuable effects in [its field]." *France Telecom S.A. v. Marvell Semiconductor Inc.*, 39 F.Supp.3d 1080 (N.D. Cal. 2014) (quoting *Diehr*, 101 S.Ct. at 1048).

specific limitations, as they appear in the claim language, and in their various combinations. *Diehr*, 450 U.S. at 188. Accordingly, "[i]t is inappropriate to dissect the claims into old and new elements and then to ignore the presence of the old elements in the analysis. *Id*. The Supreme Court reaffirmed this principal in *Alice*, noting that "we consider the elements of each claim both individually and 'as an ordered combination' to determine whether the additional elements 'transform the nature of the claim' into a patent-eligible application." *Alice*, 134 S.Ct. at 2355 (quoting *Mayo*, 132 S.Ct. at 1298, 1297).

Ignoring this law, the Defendants focus on the individual *constituents* of the claims in isolation and fail to address the specific combinations required by the claims and the manner in which the constituents must interact. For example, the Defendants argue that "[t]he elements of the '682 patent claims are *individually* conventional and routine," (Br. at 12), ignoring the elements *in combination*. Similarly, the Defendants quote the *specification's* statement that a container could conceivably encompass "cyberspace," (Br. at 12), but they fail to acknowledge the significant limitations that the *claims* place on containers, including the specific types of registers that containers must have. The Defendants' simplistic reading of the claims is exactly what the USPTO rejected during the *inter partes* review proceedings, when it criticized the Defendants for their failure to address the claims *as written*. (*See* Facts at III.) The Court should reject the Defendants' attempts to dissect the claims, and should instead consider each claim as a whole.

### C. The Patents Do Not Merely Implement Conventional, Age-Old Ideas.

Capitalizing on their vague reading of the patents, the Defendants mischaracterize the patents as being uninventive and covering a vast scope of subject matter. The Defendants argue that the patents' basic concepts are

"conventional and routine," and "claim nothing more than organizing information into labeled containers, managing them according to certain rules and instructions, and searching their history." (Br. at 2, 12.) In fact, according to the Defendants, the claimed practices "pre-date both the Internet and computers." (Br. at 21 n.16.) Similarly, the Defendants argue that Evolutionary Intelligence's patents are no different from "age-old methods of categorizing data" such as (i) organizing information in "books, boxes, and files"; (ii) using antiquated library organization systems such as check-out cards and the Dewey Decimal System; (iii) creating revenue reports using sales time-stamps; and (iv) organizing employee records by city of residence. (Br. at 2, 15, 18.)

As an initial matter, the Defendants do not address the elephant in the room: if the subject matter of the asserted claims is so vast and so ancient, then why were the Defendants, represented by some of the most competent counsel in the world, unable to convince the USPTO to invalidate *any* of those claims through *any* of the nine requests for *inter partes* review? The answer is that the asserted claims are *not* uninventive, and their scope is *not* vast. Rather, the asserted claims involve novel concepts that are narrowly drawn to cover particular types of computerized systems and methods for processing containerized data.

In addition, the Defendants repeatedly mischaracterize the inventions, using terms that do not appear anywhere in the specification, let alone the claims. For example, the Defendants assert that the patents "claim nothing more than *organizing* information into *labeled containers*," (Br. at 2, 16), but "organizing" and "labeled containers" do not appear anywhere in the patents. Similarly, the defendants argue that the patents seek to preempt "methods of *categorizing* data," and proceed to cite cases invalidating patents that merely categorized data. (Br. at 2, 16, 19.) But once again, the patents do not use any form of the term

"categorizing." The Court should reject the Defendants' attempt to oversimply the subject matter of the inventions by using terms they pulled out of thin air.

Further, even assuming that books, boxes, and tangible files could be considered "containers" under the patents, the Defendants do not —and could not—explain how a book/box/file system could meet the patents' specific limitations as they are set forth in *any* of the claims, nor do the Defendants provide a single example of any such system ever doing so. This is unsurprising, as Plaintiff's expert has concluded that it would be impossible for these systems to meet any of the claims' specific limitations. (*See* Taylor Decl. ¶¶ 43–44.)

The Defendants likewise do not provide any examples or evidence to support their bold assertion that "[t]he '682 patent claims nothing more than what humans have been doing mentally or with pencil and paper for generations." (Br. at 14.) As an initial matter, the pencil-and-paper test is "unhelpful for computer inventions," and in fact "can mislead courts into ignoring a key fact: although a computer performs the same math as a human, a human cannot always achieve the same results as a computer," Cal IT at 994-995. Also, the Defendants' assertions are contradicted by the conclusions of Plaintiff's expert, who has concluded that "[a] human being would be unable to perform each of the limitations of any claim of the Asserted Patents mentally or with pen and paper," and that "[o]ne of skill in the art would understand that the Asserted Patents' disclosed systems and methods for solving problems associated with the static information model fall squarely within the domain of computers." (See Taylor Decl. ¶ 45.) This expert opinion is sufficient to defeat defendants' motion for summary judgment, let alone their motion to dismiss. See France Telecom, 39 F.Supp.3d at 1096. (holding that expert's opinion that asserted claims "could not be performed by a human ... is a material issue of fact sufficient to defeat

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summary judgment); *see also TQP Dev., LLC v. Intuit Inc.*, No. 12–cv–00180, 2014 WL 651935, at \*5 (E.D. Tex. Feb. 19, 2014) (holding that expert declaration regarding the pencil-and-paper test "by itself is enough to foreclose the entry of summary judgment in the defendants' favor on the present record").

### D. The Claims Do Not Threaten to Preempt the Field of Data Processing.

Taking their mischaracterization of the patents one step further, the

Defendants invoke the specter of endless patent enforcement regarding anything
relating to computers. Specifically, the Defendants contend that the '682 patent
"extends to all defined—and undefined—'cyberspace'," and that its "generic
search process ... threatens to preempt countless fields." (Br. at 12.) Similarly, the
Defendants assert that the '536 patent is so "stunning" that the patent "threatens to
preempt any field that touches computers or uses data structures anywhere in the
digital world, unknown or yet to be devised." (Br. at 17.)

Once again, the Defendants provide no analysis or evidence to support their dramatic conclusions. The patents' claims are so specific that there is no threat of the patents monopolizing the processing of containerized data. Indeed, containerized data can be processed in many ways that do not infringe the patents. For example, a computer system that uses containers without "a first register for storing a unique container identification value" would not infringe *any* claims of the '536 patent. Nor would a computer system infringe claim 1 of the '536 patent unless it fulfills the "active time register," "passive time register," and "neutral time register" limitations, as well as *all* of the very specific limitations that the claims ascribe to any of those registers. There is no preemption where, as here, the claims provide "detailed methods with concrete steps to be applied." *France Telecom*, 39 F.Supp.3d at 1092; *see also Modern Telecom Sys. LLC v. Juno Online Servs., Inc.*, No. 14-cv-0348, 2015 WL 1240182, \*8 (C.D. Cal. March 17,

2015) (upholding patents under Section 101 because "Defendants have failed to demonstrate *that the specific steps recited in the patents* pre-empt all inventions concerning communicating between two modems.") (emphasis added); *Cal. Inst. of Tech.*, 59 F.Supp.3d at 994 (no preemption where patents were "tied to a specific error correction process," and involved limitations that were "not necessary or obvious tools for achieving error correction."); *Ameranth, Inc. v. Genesis Gaming Solutions, Inc.*, No. 11-cv-00189, 2014 WL 7012391, \*6 (C.D. Cal. Nov. 12, 2014) (no preemption where "one could implement many different player reward systems that do not infringe the claims.") One of skill in the art would understand there are many ways to process containerized data without infringing the claims. (*See* Taylor Decl. ¶ 47.)

Further, the *inter partes* review proceedings provide *fifteen* examples of systems that process data without practicing the patents' claims. As discussed above, (*see* Facts at III), the USPTO rejected Defendants' arguments that fifteen prior art references regarding data processing practiced claims. For example, in the proceeding involving the Gibbs patent, the USPTO found that, although Gibbs disclosed "containers," it did not anticipate the claims of the '536 patent. (*See* Facts at III.) Nevertheless, the USPTO concluded that the system in Gibbs was capable of processing containerized data, and in fact was capable of monitoring the operation of railroads, including timing and location, using a computer network and computer objects and attributes. (*Id.*) Accordingly, the Defendants are wrong that the patents preempt the field of computerized data processing.

# E. The Prosecution History of the '682 Patent Does Not Support the Defendant's Assertion that the Claims Are Ineligible.

The Defendants correctly note that during prosecution of the '682 patent, an earlier version of claim 1 was rejected under Section 101. (Br. 13.) The

Defendants then assert that "[i]n response to the Section 101 rejection, claims 1— 18 and 23 were amended in November 2009 to specify that the invention was 'computer-implemented'." (Br. at 13.) The Defendants also correctly point out that "[i]n December 2009, the examiner further amended independent claims 1, 18, and 23 to include the language 'using the computer' and the claims were finally allowed under Section 101." (Id.) The Defendants ask the Court to conclude that the only reason the claims were allowed was because the terms "computer-implemented" and "using the computer" were added. The Defendants, however, have omitted critical details regarding the prosecution history. The Defendants fail to mention that the applicant made *other* significant amendments to claim 1 that enabled it to overcome the 101 rejection: Claim 1 (as amended on 11/2/2009) Claim 1 (rejected under Section 101 on 5/1/2009) 1. A method comprising: comprising: receiving a search query; receiving a search query; searching container registers encapsulated and logically defined in a plurality of containers to identify one or more containers responsive to the search query, the container registers having defined therein data comprising historical data associated with interactions of the one or more containers with other containers from the one or more

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providing a list characterizing the identified containers.

1. A computer-implemented method

searching first container registers encapsulated and logically defined in a plurality of containers to identify one or more identified containers responsive to the search query, the container registers having defined therein data comprising historical data associated with interactions of the one or more identified containers with other containers from the one or more plurality of containers, wherein searching the first container registers comprises searching the historical data; encapsulating the identified containers in a new container:

updating second container registers of the identified containers with data associated with interactions of the identified containers with the new container; and

providing a list characterizing the identified containers.

containers; and

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## (King Decl. Ex. C at 125.) (King Decl. Ex. C at 125.)

In an attempt to mislead the Court, the Defendants do not mention, let alone address, *any* of the additions that appear in the table above except the first one.<sup>5</sup> The other additions are significant in the context of Section 101 because they contain limitations that further enable the claim to overcome drawbacks associated with the static information model. (*See* Taylor Decl. ¶ 50.)

Similarly, when the Defendants discuss the December 2009 Examiner's Amendment, they omit the fact that the Examiner confirmed the addition of this language to claim 1:

wherein searching the first container registers comprises searching the historical data; encapsulating the identified containers in a new container; updating second container registers of the identified containers with data associated with interactions of the identified containers with the new container.

(King Decl. Ex. C at 151–152.)

Accordingly, the Defendants are wrong that the Section 101 rejection was overcome simply by adding "computer-implemented" or "using the computer" to the claims. If anything, the prosecution history further supports the fact that the claims are eligible under Section 101. (*See* Taylor Decl. ¶ 50.)

### II. The Court May Defer Ruling Until After Claim Construction.

Plaintiff believes the Court should deny the Defendants' motions. However, the Court may choose to defer ruling until after claim construction, to develop familiarity with the patents' subject matter and resolve relevant disputes regarding the meaning of claim terms. The Federal Circuit has noted that Section 101 analysis is "rife with underlying factual issues." *Ultramercial*, 722 F.3d at 1339. Accordingly, "it will ordinarily be desirable—and often necessary-to resolve

<sup>&</sup>lt;sup>5</sup> Similar amendments were made to the other independent claims under review. (*See* King Decl. Ex. C at 129–133.)

1 claim construction disputes prior to a § 101 analysis." Bancorp Servs., L.L.C. v. 2 Sun Life Assur. Co. of Canada, 687 F.3d 1266, 1273–74 (Fed. Cir. 2012). The parties have serious disputes regarding claim construction. The 3 Defendants assert that "[t]he 'registers' and 'gateways' in the '536 patent claims 4 5 are nothing more than the labels, rules and instructions that have been used with containers for generations." (Br. at 17.) Plaintiff believes these constructions are 6 overly broad. In fact, the USPTO adopted much narrower constructions during the 7 inter partes reviews. It found that a "register" is a "value or code associated with a container," and that a "gateway" is "hardware or software that facilitates the 9 transfer of information between containers, systems, and/or processes." (Kennedy 10 Decl. Ex. B at 8, 11.) Although the USPTO was using the "broadest reasonable 11 construction" standard, which is much broader than the standard to be used by this 12 Court, (see In re Cuozzo Speed Techs., LLC, 778 F.3d 1271, 1279 (Fed. Cir. 13 2015); In re Am. Acad. Of Sci. Tech Ctr., 367 F.3d 1359, 1369 (Fed. Cir. 2004)), 14 15 the constructions it adopted are still far narrower than those proposed by the Defendants. Evolutionary's expert has testified that the Defendants' proposed 16 17 constructions of these terms are overly broad. (Taylor Decl. ¶ 48.) In light of these factual disputes, the Court may delay ruling on the present motions until after 18 claim construction. See Nomadix, Inc. v. Hospitality Core Servs. LLC, Case No. 19 14-cv-08256, 2015 WL 1525537, \*2 (C.D. Cal. April 3, 2015) (declining to 20 consider motion to dismiss under Section 101 prior to claim construction). 21 22 23 24 25

1	Conclusion
2	For the reasons stated above, Plaintiff requests that Defendants' Motion to
3	Dismiss and Motion for Judgment on the Pleadings be denied.
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5	Respectfully submitted,
6	Dated: June 26, 2015 GUTRIDE SAFIER LLP
7	/s/ Todd Kennedy /
8	Attorneys for Plaintiff Evolutionary Intelligence
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